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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,696	09/29/2000	David L. Rechberger	39808/SAH/C715	1549

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EXAMINER

LAVARIAS, ARNEL C

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/676,696

Applicant(s)

RECHBERGER ET AL.

Examiner

Arnel C. Lavarias

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 2/10/03, 2/24/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-37, 39-41 and 44-60 is/are pending in the application.
- 4a) Of the above claim(s) 2-37, 39-41 and 44-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 10 February 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Drawings***

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 2/10/03 in Paper No. 13 have been approved.

### ***Response to Amendment***

2. The amendments to the specification in Paper No. 13, dated 2/10/03, and in Paper No 16, dated 2/24/03, are acknowledged and accepted. The Examiner additionally apologizes for any inconvenience the submission of Paper No. 16 (i.e. the clean version of the replacement text provided in Paper No. 13) may have caused. The Applicants are correct in that the new revised amendment format of 37 CFR 1.121, as published in Pre-OG Notice dated 1/31/03, does not require a clean version of each replacement paragraph, section, substitute specification, or claim so long as the amendments are submitted in the format as specified in the Pre-OG Notice stated above. Hence, the submission of Paper No. 16 was not necessary since the amendments in Paper No. 13 were in compliance with the Pre-OG Notice stated above. In view of the amendments above, the objections to the specification are respectfully withdrawn.
3. The cancellation of Claims 1, 38, 42, and 43 in Paper No. 13, dated 2/10/03, are acknowledged and accepted.
4. The addition of Claim 60 in Paper No. 13, dated 2/10/03, is acknowledged and accepted.

***Response to Arguments***

5. In view of the cancellation of Claims 1, 38, 42 and 43, the rejections to these claims are respectfully withdrawn.
6. The Applicants argue that DeAndrea et al. fails to teach or reasonably suggest the optically transparent fiber coupling assembly substantially encapsulating the optoelectronic device and the fiber coupling assembly further having a mirror encapsulated within the fiber coupling assembly to redirect light 90 degrees between a direction normal to the substrate and a direction parallel to the substrate. After careful review of the DeAndrea et al. reference, the Examiner agrees. The currently pending claims are now rejected as follows.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeAndrea et al. in view of Albaugh et al.

DeAndrea et al. discloses an optical device package (See Figures 12, 13, 14) comprising a substrate (See for example bottom surface of 30 attached to 17 in Figure 14) having a mounting surface (See for example 17 in Figure 14); an optoelectronic device (See for example 10 in Figure 14) having a lower mounting surface operably coupled to

the mounting surface of the substrate wherein the optoelectronic device is in electrical communication with the substrate (See for example connection wire from 30 to 16 in Figure 14); the optoelectronic device further having an active upper surface disposed substantially parallel to the mounting surface of the substrate (See for example 17 and 30 in Figure 14) and being configured to emit or receive light normal to the active upper surface (See for example 30 in Figure 14); a fiber coupling assembly having a body portion that is integrally molded with and substantially encapsulates the optoelectronic device (See 40/70 in Figure 14); the fiber coupling assembly further having a barrel portion extending from the body portion in a direction substantially parallel to the substrate, the barrel portion being configured to operably engage a fiber optic cable (See Figures 11 and 14; col. 3, lines 49-59; col. 10, lines 35-44); the fiber coupling assembly further having a mirror within the fiber coupling assembly to redirect light 90 degrees between a direction normal to the substrate and a direction parallel to the substrate (See for example 310 in Figure 14); and an enclosure coupled to the substrate that houses the optoelectronic device (See for example 55 and 52 in Figure 14). DeAndrea et al. lacks the fiber coupling assembly being optically transparent and having the mirror encapsulated within the fiber coupling assembly. However, Albaugh et al. teaches a planar mounted optoelectronic device optically coupled to an optical fiber (See Figure 3) wherein the fiber coupling assembly (See region around 17 in Figure 3) is optically transparent (See col. 4, lines 14-38) and substantially encapsulates the optoelectronic device (See 10 in Figure 3). Additionally, Albaugh et al. discloses the use of an optical fiber stub (See 15 in Figure 3; in the instant case, this optical fiber stub is embedded in

the fiber coupling assembly) which is functionally equivalent to the use of a mirror since both are used to redirect light between the optoelectronic device and the input fiber optic cable. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the fiber coupling assembly be optically transparent and have the mirror be encapsulated within the fiber coupling assembly, as taught by Albaugh et al., in the optical device package of DeAndrea et al., for the purpose of increasing the light coupling efficiency and reducing scattering losses between the fiber optic cable and the optoelectronic device.

### *Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2872

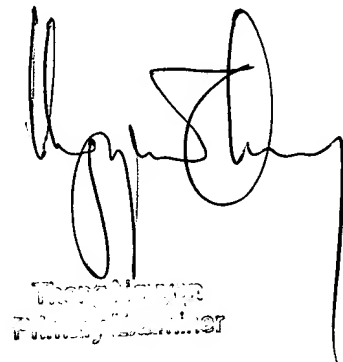
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 703-305-4007. The examiner can normally be reached on M-F 8:30 AM - 5 PM.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



Arnel C. Lavarias  
March 26, 2003



Arnel C. Lavarias  
Examiner